



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/587,627 | 09/04/2007 | Thomas Thoroe Scherb | VOI0286.US2 | 2544 |

41863 7590 04/28/2010
TAYLOR & AUST, P.C.
P.O. Box 560
142. S Main Street
Avilla, IN 46710

| |
|----------|
| EXAMINER |
|----------|

HUG, ERIC J

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1791

| | |
|-----------|---------------|
| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

04/28/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/587,627 | Applicant(s) SCHERB ET AL. | |
| | Examiner Eric Hug | Art Unit 1791 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 154-337 is/are pending in the application.
- 4a) Of the above claim(s) 249-312 and 329-337 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 154-248 and 313-328 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1791

DETAILED ACTION

Election/Restrictions

Applicant's election of Group I, claims 154-248 and 313-328, in the reply filed on March 17, 2010 is acknowledged. Because applicant did not distinctly and specifically point out any supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claims 249-312 and 329-337 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 154-243, 245-248, and 313-328 are rejected under 35 U.S.C. 102(e) as being anticipated by Scherb et al (US 2005/0167061).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37

Art Unit: 1791

CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Scherb discloses an apparatus wherein a structured fiber web 38 is formed. In Figures 13-18, a structured fabric 28 carries a three dimensional structured web 38 to an advanced dewatering system 50. The dewatering system comprises a vacuum roll 60, a dewatering fabric 82, and a belt press 64. Belt press 64 includes an air permeable belt 66 capable of applying pressure to the non-sheet contacting side of structured fabric 28 as it carries the web 38 around the vacuum roll 60. The permeable belt can run at a fabric tension of 60 kN/m and exerts a force in the range of 50-300 KPa. The belt has an open area of 25% or greater and a contact area of 25% or greater. Vacuum roll 60 applies a vacuum to a surface of the dewatering fabric 82 opposite that which contacts web 38. Air is drawn through the permeable belt 66, then through the structured fabric 28, then through the web 38, then through the dewatering fabric 82, and into vacuum roll 60, as illustrated by the direction of the arrows in the figures. See particularly paragraphs [0071]-[0074], [0097]-[0099], and [0101]-[0104] regarding the features and properties of the belt. See particularly paragraph [0100] regarding the circumferential length of the vacuum roll.

Claims 154-155: The features of the roll 60, permeable belt 66 guided over roll 60, a belt tension of at least 30 kN/m [0072], open area of at least 25% [0099], and contact area of at least 10% [0099], are all disclosed.

Claim 156: The permeable belt 66 is part of belt press 64, and exerts a pressing force on roll 60.

Art Unit: 1791

Claims 157-159: Figure 25 is shows a permeable belt with through openings in a symmetrical pattern, and with parallel rows of openings oriented in the machine direction.

Claim 160: A pressing force of 30-150 KPa is overlapped by the range of 50-300 KPa disclosed in [0097].

Claim 161: Figure 26 shows a belt having grooves intersecting through openings.

Claim 162: see claim 156 above

Claim 163: see Figure 26

Claim 164: In Figure 26, the diameter of the through openings is greater than the width of the grooves.

Claims 165-167: The tensions are each encompassed in [0097].

Claims 168-171: Roll 60 is a vacuum roll (see description above) having an interior with a suction zone.

Claims 172-174: The circumferential length range of claim 172 is identically disclosed in [0100], which encompasses those of claims 173-174.

Claims 175-182: See [0071] to [0074] and Figures 29-33 for a reinforced polyurethane belt and a spiral link fabric, and the materials used therein. Reinforcing yarns are shown in Figures 30 and 31 in both the machine and cross directions.

Claim 183: Fabrics 28 and 82 travel between the permeable belt 66 and the roll 60, one side of fabric 82 is in contact with the roll, the other side of fabric 82 is in contact with web 38, one side of fabric 28 is in contact with the web, and the other side of fabric 28 is in contact with the permeable belt.

Claim 184: Fabric 82 is a permeable dewatering belt.

Art Unit: 1791

Claim 185: Fabric 28 is a structured fabric.

Claim 186: The fibrous web can be a tissue web [0081].

Claims 187-188: see the features of claims 154-155 above

Claims 189-190: see the permeable belt of claims 154-155 above

Claims 191-215: All of the features of the belt are encompassed by the description given in paragraphs [0071]-[0074], [0097]-[0099], and [0101]-[0104], and have been explained for similarly recited claims above.

Claims 216, 231, 232, 245, and 246: The arrangement of a permeable belt about a vacuum roll, the permeable belt having the claimed tension, open area, and contact area, are all described above. As described above, air is drawn through the permeable belt 66, then through the structured fabric 28, then through the web 38, then through the dewatering fabric 82, and into vacuum roll 60, as illustrated by the direction of the arrows in the figures. This reads on each of the three claimed methods.

Claim 218: This is equivalently described in [0004] and [0070] by the creation of high and low density areas. The contact area of the permeable belt will create areas of high density, i.e., more compressed areas.

Claim 219: See [0073] for the claimed planar feature.

Claim 220: As described above, air is passed through the permeable belt.

Claim 221: see Figure 25

Claims 222-224: The tensions are each encompassed in [0097].

Claim 225: The permeable belt travels on the surface of the roll and in concert with the roll.

Art Unit: 1791

Claim 226: see claim 161 above

Claim 227: See [0100] which recites the claimed solids level of 25-55%.

Claims 228-229: Paragraph [0104] describes the dwell time as being long as compared to a standard shoe press. The present specification describes the dwell time similarly. As the belt tension, roll circumference, and the length of the suction zone are equivalent, it is deemed that the dwell time of the claimed arrangement and that of Herman is the same.

Claim 230: see Figures 31-33

Claims 233-235: see claims 165-167 above

Claim 236: see claim 225 above

Claims 237-238: see claims 231-232 above

Claim 239: see claim 160 above

Claim 240: The permeable belt and vacuum roll are moved together as the vacuum draws air through the belt, web, fabrics, and to the interior of the roll.

Claim 241: see claim 227 above

Claims 242-243: see claims 228 and 229 above

Claim 247: see [0071] to [0074] and Figures 29-33.

Claim 248: see claims 245-246 above

Claims 313-314: The features of a vacuum roll 60, permeable belt 66 guided over roll 60, a belt tension of at least 30 kN/m [0072], open area of at least 25% [0099], and contact area of at least 10% [0099], are all disclosed.

Claims 315-317: see claims 172-174 above

Art Unit: 1791

Claims 318-323: Paragraph [0104] describes the dwell time as being long as compared to a standard shoe press. The present specification describes the dwell time similarly. As the belt tension, roll circumference, and the length of the suction zone are equivalent, it is deemed that the dwell time of the claimed arrangement and that of Herman is the same.

Claims 324-326: see [0071] to [0074] and Figures 29-33.

Claims 327-328: see claims 165-166 above.

Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 154, 156-187, 189, 191-204, 207-216, 218-227, 230, 232, 245-248, 313, and 315-328 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-37, 39-69, 71, 72, and 82-100, respectively, of copending Application No. 12/107505. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Art Unit: 1791

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 154-164, 166-178, 182, 313, 314 and 324 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1-16, 18-20, and 25 of U.S. Patent No. 7,294,237. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Claims 154-164, 166-178, and 182 are unpatentable over claims 1-16 of US 7,294,237. All of the features of claims 154-164, 166-178, and 182 are encompassed by or overlapped by claims 1-16 of US 7,294,237.

Claims 313, 314, and 324 are unpatentable over claims 18-20 and 25 of US 7,294,237. All of the features of claims 313, 314, and 324 are encompassed by or overlapped by claims 18-20 and 25 of US 7,294,237.

Art Unit: 1791

2. Claims 154, 187, 189, and 313 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 28, 32, and 56, respectively, of U.S. Patent No. 7,510,631. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Claim 154 is anticipated by claim 1 of US 7,510,631. The claimed features of a roll with an exterior surface, a permeable belt with a first side guided over the roll, a belt tension of at least 30 KN/m, a belt open area of at least 25%, and a belt contact area of at least 10% are all recited in claim 1 of US 7,510,631.

Claim 187 is anticipated by claim 28 of US 7,510,631. The claimed features of an ENP belt guided over a roll and a belt tension of at least 30 KN/m are recited in claim 28 of US 7,510,631, a belt open area of at least 25% is read by the range of 15-50% in claim 28 of US 7,510,631, and a belt contact area of at least 10% is read by the range of 50-85% in claim 28 of US 7,510,631.

Claim 189 is anticipated by claim 32 of US 7,510,631. The claimed features of an ENP belt subjected to a tension of at least 30 KN/m is recited in claim 32 of US 7,510,631, a belt open area of at least 25% is read by the range of 15-50% in claim 32 of US 7,510,631, and a belt contact area of at least 10% is read by the range of 50-85% in claim 32 of US 7,510,631.

Claim 313 is anticipated by claim 56 of US 7,510,631. The claimed features of a vacuum roll with an exterior surface, a permeable belt with a first side guided over the roll, a belt tension of at least 30 KN/m, a belt open area of at least 25%, and a belt contact area of at least 10% are all recited in claim 56 of US 7,510,631.

Art Unit: 1791

3. Claims 154, 187, 216, and 313 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 6, 24, 25, and 7, respectively, of U.S. Patent No. 7,527,709. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Claim 154 is anticipated by claim 6 of US 7,527,709. The claimed features of a roll, a permeable belt with guided over the roll, a belt tension of at least 30 KN/m, a belt open area of at least 25%, and a belt contact area of at least 10% are all encompassed by the features and values of claim 6 of US 7,527,709.

Claim 187 is anticipated by claim 24 of US 7,527,709. The claimed features of a ENP belt guided over a roll, a belt tension of at least 30 KN/m, a belt open area of at least 25%, and a belt contact area of at least 10% are encompassed by the features and values of claim 24 of US 7,527,709.

Claim 216 is anticipated by claim 25 of US 7,527,709. The features of the claimed pressing method are all encompassed by claim 25 of US 7,527,709.

Claim 313 is anticipated by claim 7 of US 7,527,709. The claimed features of the belt press including a vacuum roll are encompassed by claim 7 of US 7,527,709.

4. Claims 154-174, 187-190, and 313-328 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-22 and 45-49 of copending Application No. 11/863938. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Art Unit: 1791

Claims 154-174 are anticipated by claims 1-20 of 11/863938. All claimed features are recited in claims 1-20 of 11/863938. The only difference is that claim 1 of 11/863938 further recites that a web travels between the permeable belt and the exterior surface of the roll.

Claims 187 and 188 are anticipated by claim 21 of 11/863938. All claimed features are recited in claim 21 of 11/863938. The only difference is that claim 21 of 11/863938 further recites that a web travels between the ENP belt and the roll.

Claims 189 and 190 are anticipated by claim 22 of 11/863938. All claimed features are recited in claim 22 of 11/863938.

Claims 313-328 are anticipated by claims 45-59 of 11/863938. All claimed features are recited in claims 45-59, respectively, in 11/863938. The only difference is that claim 45 of 11/863938 further recites that a web travels between the permeable belt and the exterior surface of the roll.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

5. Claims 154-174, 187-190, and 313-328 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 231, 233-252, 254, 278, and 280-293 of copending Application No. 10/587869. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Claims 154-174 are anticipated by claims 231 and 233-251 of 10/587869. All claimed features are recited in claims 231 and 233-251 of 10/587869. The only difference is that claim 231 of 10/587869 recites additional features.

Art Unit: 1791

Claims 187 and 188 are anticipated by claim 252 of 10/587869. All claimed features are recited in claim 252 of 10/587869. The only difference is that claim 252 of 10/587869 further recites that a web travels between the ENP belt and the roll.

Claims 189 and 190 are anticipated by claim 254 of 10/587869. All claimed features are recited in claim 252 of 10/587869.

Claims 313-328 are anticipated by claims 278 and 280-293 of 10/587869. All claimed features are recited in claims 278 and 280-293 of 10/587869. The only difference is that claim 278 of 10/587869 further recites that a web travels between the permeable belt and the exterior surface of the roll.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Herman et al (US 2005/0167062). See particularly paragraphs [0048]-[0055] which discloses features of the claimed belt.

Art Unit: 1791

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Hug whose telephone number is (571) 272-1192.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Eric Hug/
Primary Examiner, Art Unit 1791